

Sometimes I would get quite a number and variety from behind coats, etc., hanging on my door; a shake would often disturb half a dozen moths from the same garment.

After the Bombycidæ, my greatest success was with the Plusias. I am not certain whether more æreoides came to light than striatella. I did not bother much about the former; but my records of the latter show the taking of sixty specimens, of which nearly fifty were perfect. It was on the wing for about a month. The next in abundance was Putnami, and ampla was fairly common for about a week. Only one simplex came to light.

A few more observations, and I have done.

There is no doubt that, owing to the heavy rainfall during July, unusual for this climate, I had a much larger percentage of good or suitable evenings than would be the case in average years.

Another circumstance, perhaps accounting for the abundance of moths about during July, may have been the unusually heavy snowfall of the previous winter. The snow came at the end of October; during November it may be said to have snowed, more or less, every day, and there were no thaws to speak of during the winter to expose or uncover the earth. In the spring the snow disappeared very quickly, its departure being hastened by some heavy rains.

The weather during April and the early part of May was favourable to the development of vegetation and insect life. The end of May and the beginning of June, however, were on the cool side, and there were frosts on several nights. I hope, for the sake of comparison, that I may have the chance to collect here "at light" again next season.

SOME INSECTS, RARE IN CANADA, TAKEN AT HAMILTON BY MR. JAMES JOHNSTON.

Having some correspondence with Mr. Johnston, he, anticipating the interest I naturally felt in the entomology of my former residence, informed me of some things he had taken at Hamilton which were not to be got when I was a collector there; and they seemed to me to be of so much general interest that I desired him to make a note of them for publication. So, complying with my request, he has prepared the accompanying more extended statement on the subject. What a rapid change is taking place in the condition of the country! All my familiar and delightful hunting-grounds in that locality have been "improved out of existence." With cultivation comes a change in the flora, which produces

a change in the fauna, and in the insect fauna especially. So that future collectors will be able to form no correct idea of what was to be got by what is to be had. A thought that greatly impressed me was the persistent effort that insects are continually making to spread abroad and establish themselves in fresh territory. Most of these southern butterflies seem to have great difficulty in accommodating themselves to our shorter seasons. In the case of *Colias cæsonia* there should be no trouble about food plants, as one of these is *Trifolium*; but in the south-west it is double-brooded, and it may perish in the attempt to produce a second brood in this latitude, and it may take many years to bring it into harmony with its environment here.

In his catalogue of 1877, Mr. W. H. Edwards gives its habitat as Southern States, Mississippi Valley, Kansas, Texas, Arizona. And in 1888, CAN. ENT., Vol. XX., page 23, he says: "*Cæsonia* is a common butterfly in the Mississippi Valley and Gulf States; also in Southern California, and to the Isthmus." Then he adds: "I myself have never seen it on the wing." What an extent of territory it must have covered in the last ten years! It would be interesting to know the routes it has taken. The first Canadian examples of it that I saw were taken at Long Point, Lake Erie, twenty years ago or so. I also have not yet seen it on the wing.

The locality where I took my *Pamphila dion* was in a marsh at the west end of the city. The Rifle Club had its ranges on a piece of waste land there; and for convenience to reach the butts had constructed a board walk through an arm of the marsh, which was full of water and covered with cat-tail flags. Two clumps of a large flowering plant grew beside that board walk; the butterflies and the blossoms appeared together about the 1st of July, and from these blossoms I took all my *P. dion*. When the Rifle Range was moved to another locality that board walk was abolished, and from that time on I got no more specimens of *dion*. I was pleased to learn that Mr. Johnston had rediscovered it. I have not heard of its being taken anywhere else in Canada. I had been taking it for several years before I got its name. Specimens of it were given to the Canadian collection that went to the Centennial Exhibition at Philadelphia, and a promise made that its name should be procured. I got tired waiting, and sent specimens of it to Mr. W. H. Edwards, to find that it had been named only a few months previously from material obtained elsewhere. (CAN. ENT., Vol. XI., p. 238.)

Saperda candida had not been seen about Hamilton in my time.

J. ALSTON MOFFAT.

During the years of my collecting, 1896 leads in presenting rare

insects to this locality. Besides some Coleoptera and Lepidoptera not yet satisfactorily determined, the following species were taken :

COLEOPTERA.

- Saperda concolor*, Lec.—Several dozen last week in May and first in June.
On Swamp Willow.
- Saperda candida*, Fab.—Thirty specimens, June 4th and some days later.
Found on Thorn when hunting for *S. Fayi*.

DIURNALS.

- Nisoniades propertius*, Scud.—One, May 26th. On roadside. Differs only from one labeled British Columbia in my collection by being a finer specimen.
- Papilio marcellus*, Cram.—One June 4th, and one before and after that date. On Clover.
- Libythea Bachmani*, Kirt —One, June 4th. Saw another later on. On Poison Ivy.
- Colias caesonina*, Stoll.—Twelve good and several poor specimens. First taken June 14th. Quite abundant until the end of the month. First saw it June 7th, but finding it very wild did not succeed in capturing a specimen until the 14th, when I took six. Last taken July 1st. Was most abundant on line of Grand Trunk Railway, between Hamilton and Stony Creek. Saw it on Toronto branch of same railway near Waterdown when out after *Phyciodes Batesii*, Reak., June 20th, but not so abundant.
- Pamphila dion*, Ed.—Seven, July 1st and following week. I have found this species not so fond of feeding as other Pamphilas. It seems to like to sit resting on the coarse swamp grass in damp places along the railway.
- Satyrus alope*, F.—One, fine, July 9th. On side of railway track, amongst weeds.
- Junonia cænia*, Hub.—One, August 27th. Almost dead on roadside.

MOTHS.

- Sphinx luscitiosa*, Clem.—One, May 28th. Just fully matured, hanging to a weed near railway track.
- Endropia serrata*, Drury.—Five, July 15th. Amongst weeds on side of railway track.

I was in hopes of at least some of these reappearing in 1897, but in this I was disappointed, as not one of them was seen.

I did not do much hunting outside the farm on which I live, four

miles east from Hamilton, this year. Amongst the greatest pests that we had to contend with were the potato beetles (*Doryphora 10-lineata*, Say). Out of 8,000 tomato plants set out during the first week in June, fully 2,000 were destroyed by these beetles within four days. We came across some plants having as many as eighteen beetles on them. We have not hitherto been annoyed by their attacking our tomato plants to a very great extent, and can only account for their ravages this season owing to a slim crop of early potatoes in this neighborhood, the late ones not yet being above ground.

The Tomato Moth grubs (*Sphinx quinquemaculata*) were also very abundant and could have been had by the hundred. It appears that they have other enemies than Ichneumons, as I came across dozens of empty chrysalids, when picking the fruit in September, which had been rooted out and devoured by some animals, possibly skunks, certainly not mice, judging from the excrement lying about.

Terias lisa, Bd.—One, July 4th. The only rarity taken this season.

JAMES JOHNSTON, Hamilton, Ont.

THE LABELING OF ENTOMOLOGICAL SPECIMENS.

BY CHARLES STEVENSON, MONTREAL.

During a visit to Great Britain a few years ago I looked over a number of the Entomological collections in the public Museums there. The specimens in them were labeled so as to show the order, sub-order, and family that they belonged to and their individual scientific names. With few exceptions there were no records of their geographical distribution, and when information of habitation was given it was of a wide nature, as North America, Asia, or Europe. Data of seasonal appearance or date of capture were entirely absent. Since then I have found that many collections on this side of the Atlantic are in the same condition, and private collections in particular. That such information should be wanting, especially in a public collection, is to be regretted; for however beautifully mounted, classified and correctly named the specimens may be, they are of little practical value. The biological student gets no more information than he would from any entomological publication containing plates, unless it be the identification of some rare insect. The reason that public collections are lacking in such data is because they have been built up from donations or by purchase — and until recent years the study of insects rarely consisted of more than collecting, mount-